PRURIGO.

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WHEN I was honored by the request of the Committee of this Congress to take part, with the distinguished gentlemen appointed from France, Austria, and England, in the discussion of this obscure subject, the question naturally arose in my mind: Why select a representative from a country where the least can be known about it, because the disease is there least prevalent? May faith in the adage, *Lucus a non lucendo*, have suggested to them that as our positive knowledge of the affection is so slight, possibly something might be learned by a study of its negative relations?

And first let me, on the part of my American colleagues, make a distinct statement as to our interpretation of the term prurigo. We have almost without exception had the privilege of studying the disease in its true home, Vienna; the oldest of us under the great master, Hebra, who first established its individuality. The American school of dermatology, more than that of any other nation, grew up under his docental care, and regards his memory with reverent honor. His type, therefore, has always been our prurigo. During my student days in Vienna, at a period earlier, perhaps, than that of any of my hearers, in 1856 and 1857, I had ample opportunity of studying the disease under his instruction. In the report of his clinic for the year 1855 the occurrence of seventy-five cases of prurigo in a total of 3375 patients was recorded. I became, therefore, sufficiently familiar with the disease, and came to regard it as one of the ordinary affections of the skin.

On my return to Boston I missed it both in my public clinic and in my private practice. It was wholly absent from both. A doubt even began to arise as to whether there were indeed any such independent affection.

In 1876, I presented to the International Medical Congress, which met in Philadelphia, a paper on "Variations in Type and in Prevalence of Diseases of the Skin in Different Countries of Equal Civilization." In one of the tables, showing the comparative prevalence

[1] Read at the International Dermatological Congress at London, August, 1896.

of some of the more common diseases in American and European practice, ten thousand cases of skin disease under the observation of well-known dermatologists in the United States, all of whom had studied in Vienna, were placed by the side of 24,000 cases under the care of Professor Hebra. Among the latter were 740 of prurigo, while not a single instance was recorded in the American list. I had no hesitation then in assigning its place among "skin diseases of well-established character and recognized occurrence in Europe, which are wholly absent in the United States," and remarked: "How can we account for this striking variation in the prevalence of so well-defined an affection, for its entire absence from this country? There is nothing in its pathology or known etiology to assist us in this direction. Its prevalence is greatest in the country which, of all Europe, presents the greatest diversity in races. We can only blindly congratulate ourselves on the absence of this life-long and well-nigh incurable disease."

At the first meeting of the American Dermatological Association in 1877, an apparently typical case of prurigo in a child of German parentage was reported by Dr. Campbell, and in the discussion which followed it appeared that only six genuine or suspected cases had been observed in the United States up to that date by the members of the association in attendance.

From this date we have no perfectly reliable reports upon the prevalence of the disease until 1889. At the meeting of the Association of that year, Dr. Zeisler of Chicago presented a paper on the occurrence of prurigo in America, in which he stated that during his five years' residence in that city he had observed twelve cases, of which five were severe, the remainder of mild type. There can be no question as to the correctness of the diagnosis in these cases, as the reporter had had exceptional opportunities of studying the disease in his former home, Vienna. But it is to be especially noted that in one instance only was the patient born of American parents. In the discussion which followed fifteen of the leading dermatologists of the country took part, and not one of them had seen more than one or two typical cases of the disease in dispensary or private practice. Five of them had never seen an entirely unmistakable example, and some of the members expressed a continued doubt as to the existence of such an independent affection, and the belief that cases thus designated were really only papular eczema, secondary to pruritus.

In conclusion, to bring this historical presentation of the prevalence of the disease in the United States down to the present decade,

I may be permitted to refer to a paper read by myself before our National Dermatological Association in 1890, on "Immigrant Dermatoses," in which I make the following statement with regard to prurigo: "It would appear, then, that prurigo is becoming more prevalent among us, or that dermatologists recognize it more readily than previously, or are more disposed to give this name to conditions of the skin which they formerly placed among other affections. I believe that true prurigo is still an extremely rare autochthonal disease in America. That it is becoming a more noticeable imported affection is equally true, no doubt, and it is in such towns as New York and Chicago, where there is an enormous resident German population, that we may expect to find such evidence of it as is shown in our recent annual returns, and in the interesting data furnished by Dr. Zeisler above referred to." This opinion has not been modified by observation during the past five years. By contrast, I quote from a recent communication from Professor Neisser to my son, Dr. Charles J. White, which shows the prevalence of the disease in Breslau in recent years. The number of cases of prurigo under treatment in his clinic was, in 1887, 45; in 1888, 62; in 1889, 56; in 1890, 59; in 1891, 53.

Now how shall we account for this striking inequality in prevalence of an affection, in which neither the pathological tissue-changes, nor any hitherto recognized etiological factors offer the suggestion of a solution? There are imported dermatoses, also sparsely observed in the United States, like melanosis lenticularis progressiva (Pick), Kaposi's xeroderma pigmentosum, which present such strange features in these and other relations, that we more willingly accept geographical or ethnical influences as possible agencies in the mystery of their occurrence. Not so with one, the nature of which is so very commonplace as that of prurigo, for, however much dermatologists may differ as to its earliest manifestations, their anatomy, and course, there can be no question that none of these features are exclusively characteristic of the affection, and that its individuality, if this be granted, rests wholly upon certain peculiarities of association of ordinary symptoms. If we adhere to the simple Hebra type, perpetuated in his graphic description, or admit the exceptional deviations from it, pointed out by so many skilled observers in different parts of Europe in recent writings and discussions, there are no individual features of the disease in one or another combination which are not of common occurrence with us in America. Infantile urticaria is a very frequent affection. It often becomes chronic, and the characteristic wheals dwindle into persistent inflammatory papu-

lar lesions, and have associated with them early and later excoriations and all sorts of eczematous phenomena. They might readily be called in many instances examples of the early stages of prurigo, but they do not persist long enough, and I cannot recall a single case which under continued observation has eventuated in such serious fashion. Again, if we are to regard prurigo, if not as a modified urticaria, still as some sort of a neurosis, and all its visible manifestations as secondary and provoked by scratching, then America should offer an exceptional field for its development, for pruritus is with us almost a national trait. With the beginning of the cold season, in the Northern and Western States at least, when thicker and rougher underclothing is put on, and the internal temperature of dwellings is unduly raised by artificial heat, and the atmosphere is drier than at other times of the year, then a considerable percentage of the population is affected by a more or less general pruritus, which persists for months continuously, and leads to all sorts of secondary changes in the skin, according to individual temperament of its tissues. Simple mechanical excoriations, urticaria, and many clinical varieties of eczema being its chief sequelæ.

There is another kind of pruritus, which begins in the earliest years, and is independent of the seasons, and persists continuously and indefinitely. The patient scratches incessantly, mostly on parts of easiest access, hands and head by day, all parts by night. No portions of the general surface are exempt, flexures of the joints, neck and face are as much torn as the special seats of predilection in prurigo; indeed, the face and scalp are often in a continual state of uniform eczema of intense grade. Such patients may be termed perpetual scratchers, and are striking examples of the chronic neurotic skin. Yet they are readily distinguishable from cases of prurigo ferox, which they closely simulate in course and subjective phenomena.

If then prurigo be only a sequel of urticaria, a neurosis, pruritus, or disorder of sensibility, with subsequent objective manifestations due to scratching, surely it should prevail with us in the United States abundantly. Such etiological conditions cannot be more favorable elsewhere, and yet the disease is one of extreme rarity, except by importation more or less direct.

Can ethnical differences possibly account for such infrequent occurrence? Our population is the most varied of any existing nation, although very little mixed by intermarriage on any large scale. Vast areas are peopled largely by immigrants of one or another race, as the so-called Scandinavian States, the French districts in Canada, and some of our large cities contain enormous representations of

foreign stock settled in their respective quarters. Thus New York is one of the largest German towns in the world. Our immense mining regions present great colonies of Welsh, Poles, and Hungarians, and Russians, Hebrews, and Italians come in hordes to America. Here is a list of the European-born population of the United States in 1890:

From Germany	2,784,894
Ireland	1,871,509
England	909,092
Sweden	478,041
Norway	322,665
Scotland	242,231
Russia	182,644
Italy	182,580
Poland	147,440
Denmark	132,543
Austria	123,771
Bohemia	118,106
France	113,174
Switzerland	104,069
Wales	103,079
Netherlands	81,828
Hungary	62,435
Belgium and Luxemburg	25,521
Portugal	15,996
Spain	6,185
Greece	1,887

I give also a table of immigration from the same countries into the United States in the last five years, ending June 30, 1895:

Germany	436,410
Ireland	242,282
England	211,398
Sweden	152,495
Norway	59,349
Scotland	49,374
Russia	226,363
Italy	292,035
Poland	77,032
Denmark	39,856
Austria	133,090
Bohemia	29,982
France	26,013

Switzerland	25,555
Wales	5,428
Netherlands	25,812
Hungary	118,706
Belgium	15,049
Portugal	10,365
Spain	4,607
Greece	4,807

Grouped by races they give the following figures:

Ireland, England, and Scotland	413,267
Russia and Poland	303,395
Austria, Hungary, and Bohemia	281,778
Sweden, Norway, and Denmark	251,700

Total immigration from Europe in the same period, 2,217,761.

Again, all possible climatic and telluric conditions exist with us.

It is evident, therefore, that an extraordinary field for the study of disease due to racial peculiarities is offered to the dermatologist in the United States, and it is true also that with the large number of trained observers in our specialty now scattered over our wide domain, no form of dermatosis is likely to occur without their cognizance. It may be fairly claimed that the returns of our National Dermatological Association may be accepted as a reliable census of the prevalence of cutaneous affections in North America.

If then prurigo be an almost unknown disease among the American people as a whole, and it be observed only as of rarest occurrence in immigrants from European countries, and their descendants, where it is of common occurrence, it is evident that the explanation of such exemption on removal to the United States must be sought in the altered conditions of living there. With the higher wages received, and the reduced cost of food of all kinds in America, a more abundant, more varied, and richer diet is provided for his family by the laborer than in his former home. His dwelling, too, is greatly improved, less crowded, and better furnished with sanitary appliances, and means of securing personal cleanliness. It is inconceivable by one who has not had opportunity of personal observation, the indescribable filthiness of person and underclothing of whole classes of recent immigrants. They are indeed "the great unwashed." Incrustations of fecal matter, dried catamenial discharges, black encasements of sweat and urine mixed with foreign matters, representing the habitual state of the general surface concealed by foul clothing; while above all this filth the face may present a habitual fairness and cleanliness to view.

In time they learn to correct such bestial habits, and to pay some decent attention to the care of the skin.

If, then, prurigo be a disease chiefly affecting the poor and ill-nourished classes, as European observers declare, it should not be surprising that with the improved general nutrition and better care of the skin consequent upon their change of living, they should largely cease to be subject to its development in their new home; and, if we be warranted in according so much influence to hygiene upon the arrest or suppression of prurigo, it follows, that we must give to a total disregard of its laws equal importance as an etiological factor in part or in chief. How far, in fact, may we accept such a conclusion as sufficient and reconcilable with our little definite knowledge of its causes or the opinions of those who have had the best facilities of studying it? I do not mean *what* it is, that is whether it be a mere neurosis of one kind or another, whether the eruption be primary or secondary, whether the papule or wheal be the earlier and essential lesion, whether, in fact, it be merely a complex condition, or an independent disease, but *why* it is? I have examined the writings of some forty well-known dermatologists of all countries, who have published articles or chapters upon prurigo, and find that, although many and various opinions have been expressed upon its pathology, hardly any definite opinions as to its causation are contained in them. Hebra's original statement was that it "occurs almost exclusively in poor subjects and those ill-nourished in childhood, and so most often in foundlings and beggar's children, while those who have enjoyed a good physical education in early youth, and have always been properly fed according to their age, suffer very rarely indeed from prurigo" (Sydenh. translation). Here is a conclusion from observation having a possible bearing on the development of the disease, but when we turn to such vague phrases as "dyscrasy," "arthritism," "nervoism," etc., we are in the realm of absolute intangibility, beyond the comprehension of some of us, and admitting no discussion. It may be fairly stated then that defective nutrition, unhygienic surroundings, and negligence toward the skin are the only positive factors which have been recognized as bearing upon the etiology of the disease, and that its greatly diminished occurrence, or well-nigh absence, in countries where these conditions are least likely to prevail, as England and the United States, offers strong corroborative evidence of the truth of such a conclusion.

And now it is in order again to raise the question: If, after all, there be really any one independent condition of the skin, characterized by so definite a course, by such uniform anatomical changes,

by a pathology concerning which there is such consonance of expert opinion, by the identity of type in all countries, that its individuality should be accepted by us without question? If a skilled dermatologist, educated, let us say, exclusively in the United States, was for the first time to take up the study of the disease solely from the extensive literature of the subject, would he not be justified in doubting the existence of such a real affection? Is there such discordance of opinion with regard to all the essential features of any well-recognized dermatosis? An appreciation of this status may perhaps have led the officers of this Congress to select this title as the first subject for discussion. Let us consider briefly some of these discrepancies in the views of observers, using Hebra's original description as our standard of comparison.

Course.—According to this every case has its origin in infancy, and "the opinion that the disease first appears in adult life it therefore incorrect."

Besnier and Doyon[1] deny the invariable beginning in the first years of infancy, and say that it occurs also in second infancy and adolescence. That it is no more exempt from exceptions than other affections.

Ehlers[2] says it begins most often between the second and seventh years of life, and as late as the twenty-ninth.

Vidal[3] states that it does not always begin in early infancy.

Neisser[4] also that it does not always begin in earliest infancy.

Several observers differ, moreover, with Hebra in the opinion that the disease is always worse in winter, and few dermatologists agree with him as to its incurability.

Character of Eruption.—According to Hebra's description "in every case the earliest appearance is that of subepidermal papules, as big as hemp seeds, and recognized rather by touch than by sight."

Kaposi, in his lectures (edition 1879), says the disease begins from the eighth to the twelfth month, first wheals, and no papules, until the end of the first or beginning of the second year.

Hebra fils[5]: Wheals are the only lesion in the first year or two, combined with pruritus. The characteristic papules come later, and are the result of scratching. They are never the first symptoms.

Tommasoli[6]: At first, pruritus and coincident appearance of the characteristic papules, preceded or accompanied by wheals.

Mibelli[7]: Disease is characterized by peculiar papules, with occasional vesicles and wheals.

Ehlers[2] considers the papules as secondary to scratching.

Vidal[8] maintained in his paper before the Vienna Congress that pruritus precedes the papules, and that they and the accompanying wheals in infantile cases are due to scratching.

Neisser[4] recognizes a prodromal urticaria-like eruption, leading to the development of a superficial papular efflorescence.

Riehl[8] believes there is an intimate relationship between the papules and the urticarial efflorescence, and that in infancy the former often develops into the latter.

Neumann[9]: Papules are the primary manifestation.

Behrend[10]: The disease begins as an urticaria papulosa.

Schwimmer[11]: Wheal-like efflorescences not only precede the beginning of the disease, but the subsequent attacks as well.

Lesser[12]: The diagnosis in the first year or two is very difficult, but every persistent urticaria at that age is suspicious.

Auspitz[13]: The papule plays no more important part than the never failing neurosis, and many a case in subsequent attacks show no papules, while the itching remains constant.

Besnier and Doyon:[14] The urticaria may be prodromal or concomitant as in other affections, but prurigo cannot be called a transformation or degeneration of urticaria.

Crocker[15] is inclined to regard the papules as secondary.

Anatomy.—The pathological anatomy of the cutaneous tissues was not sufficiently advanced at the time Hebra first described prurigo, to make any opinion upon this point then held of especial value, but it is evident that he did not recognize any marked differences between the nature of the papule in this and in other inflammatory dermatoses, but the views of modern observers concerning the tissue-changes it presents are very diverse.

Koposi[16] says the papules show a moderate cell-infiltration and serous exudation of the papillary layer and rete, just as those of eczema papulosum.

Caspary[17] says it is a change in the stratum spinosum, a hyperacanthosis, all the tissues of the corium remaining normal.

Riehl[8]: The papules present the appearance of acute inflammatory changes in the papillary layer without modifications of the epidermis.

Auspitz[13]: The papules are the result of chronic spasm of the arrectores pilorum, a persistent cutis anserina.

Leloir[18]: It is a sort of cystic cavity developed within the Malpighian layer, containing a clear fluid.

Crocker[15]: The papules are inflammatory, but are not characteristic anatomically.

Pathology.—And so, too, the opinions hazarded as to the pathology, or essential nature of the disease by writers, differ widely. Of course, they are purely theoretical. Thus we find the following conjectures:

A pruritus.
Sensibilitäts-Neurose.
Motilitäts-Neurose.
Diathese prurigineuse.
Neurodermite.
Lymphatism—arthritism—nervoisme.
Vasomotorische Transudation.
Tropho-neurosis.
A discrasy.

The frankest opinion I find expressed is: pathology unknown.

And now what conclusions may we fairly draw from all this mass of discordant views with regard to what constitutes the essential elements of a disease? We find wide differences of opinion held by accomplished dermatologists concerning the primary manifestations and their mutual relations upon the anatomical character of the so-called characteristic lesion or lesions; and upon their pathological significance; deviations from the Hebra standard in point of the parts affected and course of the disease; marked variations in type and prevalence in different countries and nationalities. And what features remain of so stable a character, so invariably and universally recognized, that upon them we may base the definition of an independent dermatosis?

I cannot go farther than accept the existence of a condition of early childhood, allied to pruritus and urticaria in its visible manifestations, and not to be positively distinguished from them in its first stages, often becoming in certain parts of the world a chronic affection due to some inexplicable national cutaneous traits, or inherent customs of living, a condition which certainly lacks many of the essential elements of individuality.

REFERENCES.

[1] *Annales de derm. et de syph.*, May, 1885.
[2] *Annales de derm. et de syph.*, July, 1892.
[3] *Annales de derm. et de syph.*, Septem, ber1892.
[4] *Archiv für Derm. und Syph.*, xxviii, p. 95.
[5] Die krankhaften Veränderungen der Haut. 1884.
[6] *Monatshefte für praktische Derm.*, Bd. xx, 3 and 4.
[7] *Monatshefte für praktische Derm.*, Bd. xxi, 6.
[8] *Vierteljahrsch. für Derm. und Syph.*, xi, p. 41.
[9] Lehrbuch der Hautkrankheiten, 1873.

[10] Lehrbuch der Hautkrankheiten, 1883.
[11] Von Ziemssen's Handbuch, 1883.
[12] Lehrbuch der Hautkrankheiten, 1885.
[13] System der Hautkrankheiten, 1881.
[14] Translation of Kaposi's lectures, 1891.
[15] Diseases of the Skin, 1893.
[16] Pathologie und Therapie der Hautkrankheiten, 1879.
[17] *Vierteljahrssch. f. Derm. und Syph.*, xi, 3 and 4.
[18] In Brocq's Traitement des Maladies de la Peau, 1890.